

***Cardamine penduliflora*** Schulz

Willamette Valley bittercress  
Brassicaceae (Mustard Family)

**Status:** State Threatened

**Rank:** G4S1

**General Description:** Adapted from Hitchcock et al. (1964): A hairless perennial with slender rhizomes that are enlarged and tuberous at the tips. The simple stems are more or less procumbent and often rooting at the nodes and are 8 to 16 in. (20 to 40 cm) long. The leaves are mostly cauline, 2 to 4 in. (5 to 10 cm) long, and pinnate. There are 4 to 10 lateral sessile leaflets, which are narrowly lanceolate to oblanceolate, and entire or shallowly toothed. The terminal leaflet is considerably larger than the rest, mostly oblanceolate, and  $\frac{3}{4}$  to  $1\frac{1}{4}$  in. (2 to  $3\frac{1}{2}$  cm) long. The leaves are shallowly to more deeply few-toothed. The pedicels are  $\frac{1}{4}$  to  $\frac{3}{4}$  in. (1 to 2 cm) long and spreading-ascending. The sepals are  $\frac{1}{8}$  in. (3 to  $4\frac{1}{2}$  mm) long. The petals are white and  $\frac{1}{4}$  in. (8 to 11 mm) long. The siliques are spreading to erect,  $\frac{3}{4}$  to  $1\frac{1}{2}$  in. (2 to 4 cm) long, and about  $\frac{1}{16}$  in. ( $1\frac{1}{2}$  mm) broad. The style is  $\frac{1}{8}$  to  $\frac{1}{4}$  in. (4 to 6 mm) long.

**Identification Tips:** *Cardamine penduliflora* can be distinguished from *C. integrifolia*, *C. pulcherrima*, and *C. angulata* by its leaves. The leaves of *C. penduliflora* are cauline, 5- to 11-foliate, and its entire or shallowly toothed leaflets are distinctly pinnately arranged. The leaves of *C. integrifolia*, *C. pulcherrima*, and *C. angulata* are cauline, mostly 3- to 5-foliate, and often palmately arranged.

**Phenology:** Flowers from April to May.

**Range:** Found in Oregon, from the Willamette Valley to the coast. Also seen in adjacent lowlands of southwestern Washington.

**Habitat:** This taxon prefers lowland ponds and marshes. In Washington *C. penduliflora* has been found in winter-flooded meadows/prairie being invaded by shrubs at an elevation of 190 to 350 ft (58 to 107 m).

**Ecology:** *Cardamine penduliflora* is a regional endemic.

**State Status Comments:** There are three known occurrences from Lewis and Clark counties. All sites are privately owned, and there is no current long-term protection in place.

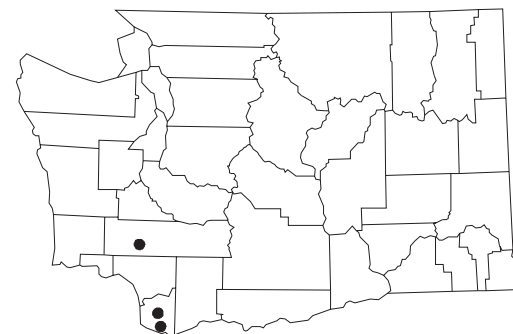
***Cardamine penduliflora***

Willamette Valley bittercress



©1964 Reprinted by permission  
of the University of Washington Press.  
Illustration by Jeanne R. Janish

Known distribution of  
*Cardamine penduliflora*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

***Cardamine penduliflora***

Willamette Valley bittercress



***Cardamine penduliflora***

Willamette Valley bittercress

**Inventory Needs:** Seasonally wet open areas in Lewis and Clark counties should be systematically surveyed for additional populations. Plant and habitat information should be collected.

**Threats and Management Concerns:** Definite threats have not been identified for this species. However, the small range of this taxon in Washington and the small number of known occurrences are major concerns. Any disturbance to the immediate habitat, such as grazing, agricultural or residential development, and recreational activities, may constitute a threat.

**References:**

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1964. *Vascular Plants of the Pacific Northwest Part 2: Salicaceae to Saxifragaceae*. University of Washington Press, Seattle, WA. 597 pp.